



U. S. Steel
Clairton Works
400 State Street
Clairton, PA 15025-1855

November 2, 1994

Michael Ioff
U. S. Environmental Protection Agency
Region III
841 Chestnut Building
Philadelphia, PA 19107

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NOV 7 1994

U.S. DEPT. OF JUSTICE

Subject: Report of Venting of Coke Oven Gas Other Than Through a Flare System
40 CFR §63.311(e)

Dear Mr. Ioff:

On October 4, 1994, an electrical failure resulted in the venting of coke oven gas through the bypass/bleeder stack flare systems at U.S. Steel Clairton Works batteries. The flare systems operated properly except for the north end flare on battery number 20. The pilot system on that flare malfunctioned and, from approximately 5:00 to 7:00 am., coke oven gas was released unignited from that unit. The flares were activated when the battery coke oven gas suction pressure dropped because of the loss of five vacuum axis compressors caused by an electrical failure. Battery charging was suspended immediately following the electrical failure. The electrical fault was cleared, and startup procedures for the vacuum axis were initiated immediately. This letter will confirm our oral report to you on October 4.

Oral and written reports of this incident were made to the Allegheny County Health Department (copy attached). A report of the release of coke oven gas was also made to the National Response Center (Incident # 263885)

Please call me if you have any questions on this incident.

Sincerely,

H. R. McCollum

Manager Environmental Control

HRM/kb-94356
attachment





U. S. Steel
Clairton Works
400 State Street
Clairton, PA 15025-1855

October 7, 1994

Deputy Director
Allegheny County Health Department
Department of Air Quality
301 Thirty-Ninth Street
Pittsburgh, PA 15201

U.S. Environmental Protection Agency
Region III
Air, Radiation & Toxics Division
841 Chestnut Building
Philadelphia, PA 19107
ATTN: Michael Ioff (3AT23)

Assistant Council
Department of Environmental Resources
Southwest Region
400 Waterfront Drive
Pittsburgh, PA 15222-4745
ATTN: Ward Kelsey, Esq.

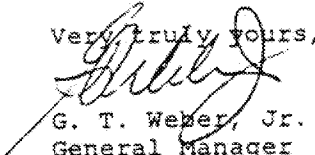
Department of Justice
Environmental and Natural Resource Division
Environmental Enforcement Section
P.O. Box 7611
Ben Franklin Station
Washington, D.C. 20044
ATTN: David Street, Esq.

Subject: Breakdown Report 94-1203
#1 Control Room
USS Clairton Works

Gentlemen:

The attached form confirms our verbal report of the subject incident. Any questions concerning this matter should be referred to W. C. Graeser at 233-1467.

Very truly yours,


G. T. Weber, Jr.
General Manager
Coking Operations



NOTICE OF BREAKDOWN OF EQUIPMENT
ARTICLE XX - SECTION 202.C

1. Breakdown No.: 94-1203
2. Date & Time of Breakdown: Date: 10/04/94 Time: 0500 hours
3. Company Name: USX Corporation - USS Clairton Works
4. Specific Equipment Involved or Affected: No. 1 Control Room.
5. BAPC Permit Number (if applicable):
6. Location: Clairton, PA
7. Nature and cause of breakdown: Coke oven gas was flared or released at the following batteries:

Date	Battery	Start	End	Duration		Flared	
		Time	Time	Min.	Sec.	Yes	No
10/04/94	B	04:55	06:35	100	00	Yes	
10/04/94	1	04:45	06:15	90	00	Yes	
10/04/94	2	04:55	05:40	55	00	Yes	
10/04/94	3	04:45	06:15	90	00	Yes	
10/04/94	7	04:45	06:30	105	00	Yes	
10/04/94	8	04:45	06:10	85	00	Yes	
10/04/94	9	04:45	06:10	85	00	Yes	
10/04/94	13	05:00	06:10	70	00	Yes	
10/04/94	14	05:00	06:10	70	00	Yes	
10/04/94	15	05:00	06:30	90	00	Yes	
10/04/94	19	05:00	06:10	70	00	Yes	
10/04/94	20	05:00	07:00	120	00		No

The flares were activated when the battery coke oven gas suction pressure dropped because of the loss of 5 vacuum axis. A cable fault at an Electric Distribution Center (EDC #1) caused the K5 & K5\2A buses to trip. These buses were supplying power to four (4) vacuum axis. The fault also caused a momentary under voltage which tripped an additional vacuum axi off-line. Vacuum axi start-up procedures were initiated immediately. Westinghouse was called in to help investigate the incident.

Axi start-up times are listed as follows:

Equipment	Date	Time
C-140	10/04/94	06:00
C-155	10/04/94	06:25
C-170	10/04/94	06:50
C-175	10/04/94	07:40
C-150	10/04/94	09:00

All flares functioned with the exception of Battery #20. Battery #20 flare failed to ignite because the pilot light was out. The pilot light was observed out on the previous turn. Attempts to re-light the pilot during the previous turn and the midnight turn were unsuccessful. The pilot light design is being evaluated.

8. Identification of Emissions:

- A. Type(s) (CO, NOX, SO2, Particulates, Hydrocarbons, etc.)
Released raw Coke Oven Gas and products of combustion of Coke Oven Gas.
- B. Toxic qualities of each type (including its qualities as an irritant, and its potential for causing illness, disability, or mortality). Unknown.
- C. Amount of each type emitted (or likely to be emitted).
Light to moderate.

9. Measures taken (or to be taken) to minimize length of breakdown and amount of emissions, including shutdown or curtailment (or why it is impossible or impractical to do so).

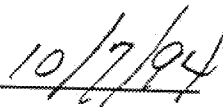
Battery charging operations were suspended. Power was re-established. Start-up procedure for vacuum axis was initiated immediately.

Facility back in operation - Date: 10/04/94 Time: 0700 hours

Signature


W. C. Graeser

Date



Senior Environmental Control Engineer Phone: 233-1467



U. S. Steel
Clairton Works
400 State Street
Clairton, PA 15025-1855

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CASE DEVELOPMENT SECTION
EPA Region III

November 28, 1994

Deputy Director
Allegheny County Health Department
Department of Air Quality
301 Thirty-Ninth Street
Pittsburgh, PA 15201

U.S. Environmental Protection Agency
Region III
Air, Radiation & Toxics Division
841 Chestnut Building
Philadelphia, PA 19107
ATTN: Michael Ioff (3AT23)

Assistant Council
Department of Environmental Resources
Southwest Region
400 Waterfront Drive
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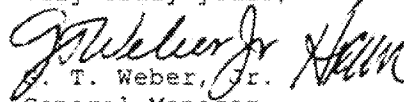
Department of Justice
Environmental and Natural Resource Division
Environmental Enforcement Section
P.O. Box 7611
Ben Franklin Station
Washington, D.C. 20044
ATTN: David Street, Esq.

Subject: Breakdown Report 94-1233
Igniter Flares
USS Clairton Works

Gentlemen:

The attached form confirms our verbal report of the subject incident. Any questions concerning this matter should be referred to W. C. Graeser at 233-1467.

Very truly yours,


T. Weber, Jr.
General Manager
Coking Operations



NOTICE OF BREAKDOWN OF EQUIPMENT
ARTICLE XX - SECTION 202.C

1. Breakdown No.: 94-1233
2. Date & Time of Breakdown: Date: 11/24/94 Time: 0645 hours
3. Company Name: USX Corporation - USS Clairton Works
4. Specific Equipment Involved or Affected: #13, 14, 15 Battery Igniter Flares
5. BAPC Permit Number (if applicable):
6. Location: Clairton, PA
7. Nature and cause of breakdown: The flare Igniter pilot flames were out on #13, 14, & 15 Batteries. Attempts to re-light the pilots were unsuccessful. The pilot light design is being evaluated.
8. Identification of Emissions:
 - A. Type(s) (CO, NOX, SO2, Particulates, Hydrocarbons, etc.)
No environmental impact.
 - B. Toxic qualities of each type (including its qualities as an irritant, and its potential for causing illness, disability, or mortality). Unknown.
 - C. Amount of each type emitted (or likely to be emitted).
No environmental impact.
9. Measures taken (or to be taken) to minimize length of breakdown and amount of emissions, including shutdown or curtailment (or why it is impossible or impractical to do so).
The Igniter pilots were re-lite and placed back in service.
10. Facility back in operation - Date: 11/24/94 Time: 0915 hours

Signature W. C. Graeser Date 11/28/94

W. C. Graeser
Senior Environmental Control Engineer Phone: 233-1467

2:30 HRS